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APPLICATION NO.	FILING DATE	FIRST NAMED INVENTOR	ATTORNEY DOCKET NO.	CONFIRMATION NO.
10/009,818	12/13/2001	Takahisa Doba	ICC-196-PCT-US	6263

7590 09/17/2003  
Loctite Corporation  
Legal Department  
1001 Trout Brook Crossing  
Rocky Hill, CT 06067

EXAMINER

SELLERS, ROBERT E

ART UNIT	PAPER NUMBER
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1712

DATE MAILED: 09/17/2003

Please find below and/or attached an Office communication concerning this application or proceeding.

<b>Office Action Summary</b>	Application No. 10/009,818	Applicant(s) DOBA, TAKAHISA	
	Examiner Robert Sellers	Art Unit 1712	

-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address --

**Period for Reply**

A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE 1 MONTH(S) FROM THE MAILING DATE OF THIS COMMUNICATION.

- Extensions of time may be available under the provisions of 37 CFR 1.136(a). In no event, however, may a reply be timely filed after SIX (6) MONTHS from the mailing date of this communication.
- If the period for reply specified above is less than thirty (30) days, a reply within the statutory minimum of thirty (30) days will be considered timely.
- If NO period for reply is specified above, the maximum statutory period will apply and will expire SIX (6) MONTHS from the mailing date of this communication.
- Failure to reply within the set or extended period for reply will, by statute, cause the application to become ABANDONED (35 U.S.C. § 133).
- Any reply received by the Office later than three months after the mailing date of this communication, even if timely filed, may reduce any earned patent term adjustment. See 37 CFR 1.704(b).

**Status**

- 1) ☒ Responsive to communication(s) filed on 18 August 2003.
- 2a) ☐ This action is **FINAL**.                      2b) ☐ This action is non-final.
- 3) ☐ Since this application is in condition for allowance except for formal matters, prosecution as to the merits is closed in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11, 453 O.G. 213.

**Disposition of Claims**

- 4) ☒ Claim(s) 31-91 is/are pending in the application.
- 4a) Of the above claim(s) 31,33-38,41-59,61-64,77-80,82 and 83 is/are withdrawn from consideration.
- 5) ☐ Claim(s) \_\_\_\_\_ is/are allowed.
- 6) ☐ Claim(s) \_\_\_\_\_ is/are rejected.
- 7) ☐ Claim(s) \_\_\_\_\_ is/are objected to.
- 8) ☒ Claim(s) 32, 39, 40, 60, 65-76, 81 and 84 -91 are subject to restriction and/or election requirement.

**Application Papers**

- 9) ☐ The specification is objected to by the Examiner.
- 10) ☐ The drawing(s) filed on \_\_\_\_\_ is/are: a) ☐ accepted or b) ☐ objected to by the Examiner.  
Applicant may not request that any objection to the drawing(s) be held in abeyance. See 37 CFR 1.85(a).
- 11) ☐ The proposed drawing correction filed on \_\_\_\_\_ is: a) ☐ approved b) ☐ disapproved by the Examiner.  
If approved, corrected drawings are required in reply to this Office action.
- 12) ☐ The oath or declaration is objected to by the Examiner.

**Priority under 35 U.S.C. §§ 119 and 120**

- 13) ☐ Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).  
a) ☐ All   b) ☐ Some \* c) ☐ None of:  
1. ☐ Certified copies of the priority documents have been received.  
2. ☐ Certified copies of the priority documents have been received in Application No. \_\_\_\_\_.  
3. ☐ Copies of the certified copies of the priority documents have been received in this National Stage application from the International Bureau (PCT Rule 17.2(a)).  
\* See the attached detailed Office action for a list of the certified copies not received.
- 14) ☐ Acknowledgment is made of a claim for domestic priority under 35 U.S.C. § 119(e) (to a provisional application).  
a) ☐ The translation of the foreign language provisional application has been received.
- 15) ☐ Acknowledgment is made of a claim for domestic priority under 35 U.S.C. §§ 120 and/or 121.

**Attachment(s)**

- |  |   |
|--|---|
| 1) <input type="checkbox"/> Notice of References Cited (PTO-892)                             | 4) <input type="checkbox"/> Interview Summary (PTO-413) Paper No(s). _____  |
| 2) <input type="checkbox"/> Notice of Draftsperson's Patent Drawing Review (PTO-948)         | 5) <input type="checkbox"/> Notice of Informal Patent Application (PTO-152) |
| 3) <input type="checkbox"/> Information Disclosure Statement(s) (PTO-1449) Paper No(s) _____ | 6) <input type="checkbox"/> Other: _____                                    |

The election of Group II on page 26 of the reply is acknowledged. Claims 32, 39, 40, 60, 65-76 as well as new claims 81 and 84-91 is embraced by Group II. Claims 90 and 91 are listed on page 22 of the non-compliant amendment filed July 22, 2003 but are missing from the compliant amendment filed August 18, 2003.

Newly submitted claims 82 and 83 are directed to an invention that is independent or distinct from the invention originally claimed. Claims 82 and 83 are dependent upon claim 33 of Group III, even though claim 32 requires the presence of the anhydride while claim 82 denotes the anhydride as optional. The presence of the anhydride along with the curing agent of Group III results in a structurally distinct cured product from the presence of the curing agent alone of Group II due to the diverse functionalities of the anhydride and curing agent which form different moieties upon reaction with the epoxy resin.

Since applicant has received an action on the merits for the originally presented invention, this invention has been constructively elected by original presentation for prosecution on the merits. Accordingly, claims 82 and 83 are withdrawn from consideration as being directed to a non-elected invention. See 37 CFR 1.142(b) and MPEP § 821.03.

The election with traverse of Group II in Paper No. 8 is acknowledged. The traversal is on the grounds that since claim 60 defining an inorganic filler has been included in Group II, claim 59 of Group VIII denoting an anhydride should be included in Group II.

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This is not found persuasive because an anhydride is a reactive component which structurally alters the cured product as explained hereinabove, whereas the inorganic filler is a non-reactive additive.

It has been contended that Group XI should be included within Group II because they depend directly from claim 32 of Group II. The composition of Group II is useful other than as an underfill sealant of an electronic device and a method of underfill sealing, such as an adhesive in the process of bonding two substrates.

Furthermore the special technical feature of a curable resin containing heteroatom-containing carbocyclic structures pendant from a core structure having a reworkable linkage does not make a contribution over the prior art as espoused on page 4 of the restriction and election of species requirement.

The requirement is still deemed proper and is therefore made FINAL.

Accordingly, claims 31, 33-38, 41-59, 61-64, 77-80, 82 and 83 are withdrawn from further consideration pursuant to 37 CFR 1.142(b), as being drawn to nonelected inventions, there being no allowable generic or linking claim. Applicant timely traversed the restriction and election of species requirement in the amendment filed August 18, 2003.

The amendment filed August 18, 2003 is an incomplete reply to the restriction and election of species requirement filed May 22, 2003. The election of claim 32 does not specify the structures of the epoxy resin(s), the presence or absence of the coreactant diluent and the curing agent(s) as required on page 5 of the requirement.

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The following election of species requirement tailored to the elected invention of Group II is proposed.

This application contains claims directed to the following patentably distinct species of the claimed invention:

1) The epoxy resins of:

- a) The epoxy resins with at least a portion of an oxyalkylated epoxy resin wherein the species of epoxy resin and oxyalkylated epoxy resin are identified.
- b) The oxyalkylated epoxy resin such as the propoxylated bisphenol A epoxy resin BPO-60E of Examples 1-3 of Table 1a on page 31 of the specification and depicted on page 16, lines 1-9.
- c) The combination of an epoxy resin and a coreactant diluent wherein the species of epoxy resin and coreactant diluent are identified. For example the bisphenol A or F epoxy resin with glycidyl neodecanoate of Table 1g on page 34 could be elected.

2) The curing agents such as NOVACURE HX-3722 which is an imidazole/bisphenol epoxy resin adduct employed in Examples 1-3 of Table 1a and described on page 19, lines 17-20 with respect to 1)a) hereinabove, or ANCAMINE 2337AS used in Table 1g which may be an amine-modified epoxy resin regarding 1)c) hereinabove. (Page 19, line 25 to page 20, line 6 describes ANCAMINE 2337S as opposed to the exemplified 2337AS. The types of epoxy resin and amine should be identified.)

Applicant is required under 35 U.S.C. 121 to elect a single disclosed species within each of the items 1) and 2) hereinabove for prosecution on the merits to which the claims shall be restricted if no generic claim is finally held to be allowable. Currently, claims 32, 39, 40, 60, 65-76, 81 and 84-91 are generic.

Note that claims 84-91 are limited to the species of the combination of epoxy resin and coreactant diluent of 1)c) hereinabove.

A reply to this requirement must include an identification of the species that is elected consonant with this requirement, and a listing of all claims readable thereon, including any claims subsequently added. An argument that a claim is allowable or that all claims are generic is considered nonresponsive unless accompanied by an election.

Upon the allowance of a generic claim, applicant will be entitled to consideration of claims to additional species which are written in dependent form or otherwise include all the limitations of an allowed generic claim as provided by 37 CFR 1.141. If claims are added after the election, applicant must indicate which are readable upon the elected species. MPEP § 809.02(a).

Should applicant traverse on the ground that the species are not patentably distinct, applicant should submit evidence or identify such evidence now of record showing the species to be obvious variants or clearly admit on the record that this is the case. In either instance, if the examiner finds one of the inventions unpatentable over the prior art, the evidence or admission may be used in a rejection under 35 U.S.C. 103(a) of the other invention.

The following potential new matter and/or lack of enablement problems under 35 U.S.C. 112, first paragraph or indefiniteness under 35 U.S.C. 112, second paragraph, have been discovered.

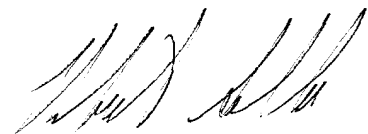
i) The term "controllably degradable" is not enabled by page 7, lines 12 of the specification which describes the feature as "controllably reworkable."

ii) The word "includes" in claims 81, 88 and 89 followed by the phrase "and combinations thereof" does not concisely indicate that epoxy resin (a)(i) of claim 84 "is selected from the group consisting of" the species "and combinations thereof" which is proper Markush language.

iii) There is no support on page 7, lines 11-14 for the specific softening temperature and time ranges of claim 87.

iv) There is no substantiation for the "derivatives" of the species of curing agents of claim 90. Page 17, lines 28-29 states that "modified compound are also called derivatives thereof." Accordingly, the claim denotes a derivative of a modified amine which is already designated a derivative. The inclusion of "modified imidazole compounds" and deletion of the phrase "and derivatives" would resolve this issue.

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Robert Sellers  
Primary Examiner  
Art Unit 1712